THE MITRIDAE OF THE GALAPAGOS ISLANDS

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ABSTRACT

Eleven species of Mitridae are known to occur in the Galapagos archipelago. Of these, three are endemic. The range of Mitra mitra *is extended to include the Eastern Pacific. The generic or subgeneric standing of four species is changed. A new species,* Subcancilla edithrexae, *is described from the Galapagos Islands.*

The family Mitridae ranks as one of the largest in the molluscan phylum. Cernohorsky (1970) recorded over 800 valid species and stated that 2624 names had been proposed. The majority of mitrids are found in the Indo-Pacific. In the Eastern Pacific, I recognize about 30 valid species. Within the Galapagos Islands, this number is reduced even further. As far as I have been able to determine there are only eleven species occurring in the archipelago.

First, a new record for the Eastern Pacific: *Mitra (Mitra) mitra* (Linnaeus, 1758). In the Indo-Pacific this is a very common species, but Eastern Pacific records are based on only three specimens, one adult living specimen taken off the coast of Costa Rica and two adult, but dead, specimens dredged by Jacquline and Andre DeRoy in the Galapagos. The DeRoys retained one specimen for their own collection and deposited the other at the Charles Darwin Research Station. The Costa Rican specimen is in the collection of the Los Angeles County Museum of Natural History.

The next species is *Mitra (Isara) effusa* Broderip, 1836. *Mitra effusa* is not common anywhere within its range from Mazatlan, Mexico, to Ecuador and the Galapagos. However, it has been dredged in several locations in the Galapagos by the DeRoys. Cernohorsky (1970) synonomized the subgenus *Isara* with *Mitra* s.s. However, the shape of the shell with its drooping lip is distinct enough to warrant its separation as a valid subgenus.

The third species is evidently endemic to the archipelago. This is *Mitra (Mitra) gausapata* Reeve, 1845. Keen (1971) placed this species in the subgenus *Strigatella*. I am here reassigning it to the subgenus *Mitra*, based on the radula and shell morphology. Apparently this is one of the sand-dwelling *Mitra* and occurs subtidally throughout the archipelago. It appears to be relatively common within its restricted range.

The fourth species is *Mitra (Mitra) crenata* Broderip, 1836. Again, the subgenus is changed here from *Strigatella* to *Mitra* s.s. Specimens I have seen indicate that it is probably a good species and not the young of something else, even though at the present time the radula is still unknown. The range of the species is from Guaymas, Sonora, Mexico, south to and throughout the Galapagos Islands.

Its authors put *Subcancilla sphoni* (Shasky and Campbell, 1964) in the subgenus *Strigatella*. Keen (1971) questioned this. Neither the shape nor the spiral sculpture are characteristic of *Strigatella* and it is here changed to the genus *Subcancilla*. It ranges from Guaymas, Sonora, Mexico, to the Galapagos Islands.

The sixth species is a common intertidal species throughout most of its range, from the head of the Gulf of California to Peru. However, *Mitra (Mitra) lens* Wood, 1828 is rare in the Galapagos. To my knowledge it has only been taken once in the Archipelago at Academy Bay, Santa Cruz Island by Carmen Angermeyer in 1964. This specimen is now in the American Museum of Natural History. *Mitra lens*, also, should be removed from the subgenus *Strigatella* and placed in the subgenus *Mitra* on the basis of the radular structure.

The seventh species is the only true *Strigatella* in the Eastern Pacific and this is *Strigatella tristis* (Broderip, 1836). This is prob-

FIG. 1. Subcancilla edithrexae *Sphon, new species. Holotype Length 22.6 mm. Width 9 mm.*

ably the most common Eastern Pacific *Mitra.* It ranges from the head of the Gulf of California, south to Ecuador and the Galapagos Islands.

Although *Strigatella* is a large group, all the members resemble one another in their pyriform shape. Some authors have used *Strigatella* as a genus, and I tend to agree with them even though there is little difference in the radula of *Mitra s.s.* and *Strigatella.*

The next three species all belong to the genus *Thala.* The type locality for *Thala gratiosa* (Reeve, 1845) is the Galapagos and it has a much larger range than the others, namely from the Gulf of California to Panama. It has also been, mistakenly, called *Thala solitaria* (C. B. Adams, 1852). *T. solitaria* occurs from Banderas Bay, Mexico, to the Galapagos and was described from Panama. The true *Thala solitaria* is one of the rarer Eastern Pacific miters. The third species of *Thala* is *T. jeancateae* Sphon, 1969 and it is known only from a half dozen specimens from the Galapagos.

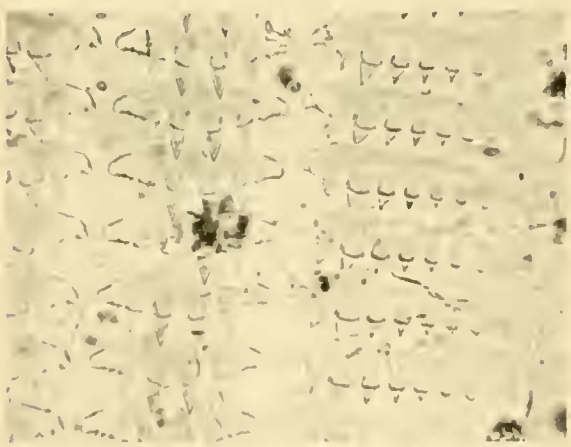

FIG. 2. *Radula of* Subcancilla edithrexae *Sphon, new species (from a paratype).*

The eleventh and last mitrid species is new to science, and I take great pleasure in naming it in honor of a very dear friend, Miss Edith Rex.

Subcancilla edithrexae Sphon, *new species*

Shell of moderate size, to 22 mm in length; shape ovate with raised reddish brown ribs about one quarter to one half the width of the white interspaces; periostracum thin and brownish; interspaces marked by numerous irregular growth lines; columella with 3 or 4 plications; spire attenuate, angle acute; aperture narrow, slightly more than half the shell length; Radula formula 1-1-1; Triangular-shaped rachidian wider than high, with 6 cusps, the center 4 being of equal size and prominent, the outer ones being one-third as large, a small denticle present on the ends nearest to laterals; laterals with eleven cusps, the two outer ones mere denticles, next six progressively larger nearing the median tooth; third cusp from the median largest; innermost two reduced in size; lateral tooth plate basically rectangular in shape with slight curve to lower portion.

The holotype was collected by the Ameripagos Expedition, in 10-20 feet of water on March 25, 1971. The type locality is Punta Alfaro, Isabela Island, Galapagos Islands, Ecuador. It is deposited at the Los Angeles County Museum of Natural History (LACM 1735). There are numerous paratypes in the following institutions and private collections: American Museum of Natural History; California Academy of Sciences; Charles Darwin Research Station; and several private collections.

LITERATURE CITED

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